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VISTEON
C/O BRINKS HOFER GILSON & LIONE
PO BOX 10395
CHICAGO, IL 60610

EXAMINER

PATHAK, SUDHANSHU C

ART UNIT PAPER NUMBER

2634

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/909,229		CZEKAJ ET AL.	
	Examiner		Art Unit	
	Sudhanshu C. Pathak		2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 19th, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-35 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 19th, 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-to-35 are pending in the application.

Claim Objections

2. Claim 9 is objected to because of the following informalities:

Claim 9 (dependent on Claim 1) recites subject matter that is already disclosed in Claim 1 step "d" therefore, Claim 9 is a duplicate claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7, 10 & 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding to Claim 7 (dependent on Claim 1), the Claim recites transmitting the sample rate converted source information which was received Claim 1 steps "c" & "d", it is not clear as to where this is disclosed and furthermore, why it would be necessary to retransmit data just received.

Regarding to Claim 10 & 25, the claim recites that a sample rate converter is not required if the source (first) rate is in synchronism with the network (second) rate, it is not clear what the term "synchronism" means. A sample

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rate converter would be required if the first rate is an integer multiple of the second rate and vice versa. The only situation a sample rate converter is not needed is if the first rate is the same as the second rate, therefore the term "synchronism" implies the first rate to be equal to the second rate. This is not clearly and distinctly describe in the specification, as to exact relationship between the first and second rate so as to not (absent) sample rate conversion.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1, 2, 6, 9-10, 25-30, 32-33 & 35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 (the claim is a dependent claim which incorporates all the limitations of the independent claim 1) of copending Application No. 10/223,263 (PG-Pub US 2003/0063684). Although the

conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Regarding to Claims 1-2, 9, 25-28, 30, 32-33 & 35, the claims recites a method of transmitting digital information over a synchronous network comprising the processing the source information is done at a first rate, this limitation is recited in step "a" of Claim 1 of the copending application; the claim further recites clocking the digital information into the synchronous network at a second rate, the second rate different than the first rate, this limitation is recited in step "b" of Claim 1 of the copending application; the claim further recites receiving the digital information over the synchronous network, this limitation is recited in step "e" of Claim 2 of the copending application; the claim further recites sample rate converting the source information as a function of the first rate and the second rate, this limitation is recited in step "f" of Claim 2 of the copending application. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that all the limitations recited in the claim are disclosed in the copending application claim 2, furthermore although the conflicting claims are not identical, they are not patentably distinct from each other, the copending claims provide further limitations as those are presented in the application's claim. Furthermore, the copending application claim 2 does not specifically disclose the first rate is a different frequency than the second rate, it would

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have been obvious to one of ordinary skill in the art at the time of the invention that the first and second rate, different from each other are the different frequencies of the sampling the source data and the clocking frequency of the network frames. Furthermore, even though claim 2 of the copending application does not specify the sample rate conversion, this would have to be done in the processing of the digital information as a function of the first data rate and a second data rate so as to recover the transmitted data.

Regarding to Claims 6, 27 & 29 (the claims are dependent claims, which incorporates all the limitations of the independent respective claims), the claim recites processing the source information that has been sample rate converted to produce a synthesized source information, this limitation is recited in step "f" of Claim 2 of the copending application.

Regarding to Claim 10 (the claim is a dependent claim, which incorporates all the limitations of the independent claim), the claim recites processing additional source information in synchronism with the second rate to produce additional information, clocking the data into a synchronous network at the second data rate, and processing digital information absent sample rate, all the limitations of the claims are described in Claim 2 of the copending application as described in the above (claim 1). However, the claim 2 of the copending application does not disclose not sample rate converting if the source rate is in synchronism with the clocking rate. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that

if the source rate is the same as the network rate a sample rate converter is not required.

7. Claims 3, 11-12 & 15-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 (the claim is a dependent claim which incorporates all the limitations of the independent claim 1) of copending Application No. 10/223,263 (PG-Pub US 2003/0063684). Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding to Claim 3, 11-12 & 15-16 (the claims are dependent claims, which incorporates all the limitations of the independent respective claims), the claim recites processing the source information at a first rate further comprises counting the first rate to generate a source counter value (CV(m)), and transmitting the source counter value (CV(m)) as part of the digital information, this limitation is recited in Claim 7 of the copending application.

8. Claims 5, 13 & 31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 5 (the claim is a dependent claim which incorporates all the limitations of the independent claim 1) of copending Application No. 10/223,263 (PG-Pub US 2003/0063684). Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding to Claims 5, 13 & 31 (the claims are dependent claims, which incorporates all the limitations of the independent respective claims), the

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claim recites clock the digital information into the synchronous network at a second rate further comprising inputting at least two source information words into a network frame for transmittal over the synchronous network, this limitation is recited in Claim 5 of the copending application which describes processing a plurality of blocks of data, clocking the blocks into network frames. Furthermore there is no criticality in inputting at least two source information blocks into the network frame, this is a matter of design choice based on the length of the frame and the length of the blocks.

9. Claims 4, 7, 14 & 34 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 (the claim is a dependent claim which incorporates all the limitations of the independent claim 1) of copending Application No. 10/223,263 (PG-Pub US 2003/0063684) in view of Chao et al. (5,204,882). Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection.

Regarding to Claims 4, 7, 14 & 34 (the claims are dependent claims, which incorporates all the limitations of the independent respective claims), all the limitations recited in the independent claim 1 are double patented as described above. However, the copending Application No. 10/223,263 (PG-Pub US 2003/0063684) does not disclose receiving the digital information over the synchronous network further comprising buffering the digital information.

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Chao discloses a method for recovering the service clock recovery for a variable bit rate services (Abstract, lines 1-5) comprising a receive buffer (Fig. 1, elements 58, 60 & Fig.'s 3, 4, 7, element 82 & Column 2, lines 2-8, 25-30 & Column 3, lines 23-32 & Column 10, lines 15-25). Chao also discloses each source / destination node to be a destination / source node i.e. the source/since nodes operate in a duplex mode (Fig. 1, elements 52, 22). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Chao teaches implementing a receive buffer so as to buffer the received information for further processing and recover the network clock, and this can be implemented in the receiver as described in the copending application 10/223,263 (PG-Pub US 2003/0063684) so as to prevent data loss at the receiver while determining the network clock, thus satisfying the limitations of the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-7, 9-15, 19-21 & 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant Admitted Prior Art (AAPA) in view of Van der Putten et al. (6,327,273).

Regarding to Claims 1-7, 9-15 & 23-35, the Applicant Admitted Prior Art (AAPA) discloses a method of transmitting digital information over a synchronous network (Specification, Page 1, lines 9-20). The AAPA also discloses the communication between a source (input node where data is originated to be transmitted over the network) coupled to the network and a sink (output node where the transmitted data is received) which is also coupled to the network, furthermore the AAPA also discloses node in the network to be a source/sink depending on the flow of the data (Specification, Page 1, lines 9-14 & Specification, Page 2, lines 10-20 & Specification, Page 7, lines 10-24 & Specification, Page 8, lines 1-11). The AAPA also discloses in synchronous network comprising the sample rate of the digital information processed by the source/sink is different from the network master clock rate (Specification, Page 2, lines 10-14). The AAPA also discloses that in asynchronous network the data is transmitted in the form of network frames separated by equal time intervals wherein the time intervals and the network frames are fixed at the network master clock rate and the operation of the source and the sink are synchronized with the frequency of the network master clock (Specification, Page 1, lines 15-20 & Specification, Page 2, lines 10-11). The AAPA also discloses implementing a sample rate converter for synchronizing the source/sink rate to the frequency of the network master clock from the source/sink sample rate (Specification, Page 2, lines 14-17). The AAPA also discloses the sink portion of the node to comprise a buffer to store the network counter value (NCV) and the digital information supplied

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over the synchronous network (Specification, Page 18, lines 8-10). The AAPA also discloses the sample rate converter capable of extracting the digital information and the network counter value (Specification, Page 18, lines 15-18). The AAPA also discloses the synchronous data transfer standards for synchronous network include media oriented system transport (most) and domestic databus (D2B) wherein the source/sink nodes establish connection to the network using modems, ISDN connections, DSL connections etc. (Specification, Page 7, lines 14-24 & Specification, Page 8, lines 1-17). However, the AAPA does not disclose sample rate converting the source information as a function of the first rate (source rate) and the second rate (network clock rate).

Van der Putten discloses a method for to transparently transporting an incoming clock of a known frequency over a network (clock transport method) wherein the transmitter and receiver are synchronized (Abstract, lines 1-5 & Column 1, lines 13-26). Van der Putten also discloses transmitting the data and the information of the incoming clock (Fig. 1, elements "CLK2, CLK2') from the source to the sink in frames at a frequency of the transmit clock (Column 1, lines 30-35 & Column 2, lines 12-17, 44-59 & Column 3, lines 1-11 & Column 4, lines 50-59 & Column 5, lines 23-26, 59-65 & Column 6, lines 29-45 & Fig. 1, elements "C1", "R", CLK1, C1', R' CLK1'). Van der Putten also discloses embedding the information of the incoming clock rate along with the data to be transported into the data frame of the network which is then de-embed at the receiver to recover the data and the clock information

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(Fig. 1, element "P", "FRAME" & Column 5, lines 44-67 & Column 6, lines 1-53 & Claim 1). Van der Putten further discloses event counter mechanism so as to store (measure) the information of the incoming clock (Column 5, lines 55-67 & Column 6, lines 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Van der Putten teaches implementing the a clock transport method wherein the information of the transported clock is embedded in the frame of the network and this can be implemented in the network as described in the AAPA so as to provide both the source clock rate and the network clock rate at the sink to further implement the sample rate conversion at the sink thus reducing the complexity of the source/sink in the network over which the clock signal is transported, thus satisfying the limitations of the claims. Furthermore, there is no criticality in inputting at least two source information words into the network frame for transmitting over the synchronous network, this is a matter of design choice depending on the choice of the source information rate and the network clock rate.

12. Claims 8, 16 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant Admitted Prior Art (AAPA) in view of Van der Putten et al. (6,327,273) in further view of Binder et al. (6,009,109).

Regarding to Claims 8, 16 & 22, the Applicant Admitted Prior Art (AAPA) in view of Van der Putten discloses a method for communication in a synchronous network between a sink/source ports wherein the source sample rate is transported to the sink from the source so as to implement the ample

rate converter at the sink as described above. However, the AAPA in view of Van der Putten does not specify ignoring a portion of the source information as a function of the first and second rate.

Binder discloses a process of transmission of digital data wherein the application data timing is independent of the network clock rate (Fig.'s 1-2 & Abstract, lines 11-17 & Column 1, lines 7-14, 40-64). Binder further discloses the network clock being greater than the data sample rate, thus oversampling the data signal for transmission (Abstract, lines 1-6 & Fig.'s 1-2 & Column 1, lines 25-35 & Column 2, lines 29-56). Binder further discloses ignoring the redundant (oversampled) digital data as a function of the first and second rate (Fig.'s 1-2, elements "τ", "EXOR", "BF", "D-FF2" & Column 2, lines 65-67 & Column 3, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that Binder teaches oversampling the digital data in the transmitter and at the receiver ignoring the redundant data to regenerate the transmitted data, and this can be implemented in the network as described in the AAPA in view of Van der Putten as a data rate converter when the network clock is greater than the source sample data to retrieve the transmitted data, thus satisfying the limitations of the claims.

Allowable Subject Matter

13. Claims 17, 18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, it is recommended to the applicant to amend all the claims so as to be patentable over the cited prior art of record. A detailed list of pertinent references is included with this Office Action (See Attached "Notice of References Cited" (PTO-892)).
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhanshu C. Pathak whose telephone number is (571)-272-3038. The examiner can normally be reached on M-F: 9am-6pm.
- If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571)-272-3056
 - The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sudhanshu C. Pathak



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600